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## **BENCH-TOP ROTARY EVAPORATOR EV-201D / EV-301 / EV-501**

Rotary Evaporator is a multifunctional instrument widely employed in the pharmaceutical, chemical, and biopharmaceutical industries for tasks such as concentration, crystallization, drying, separation, and solvent recovery. It works by heating a rotating flask at a consistent temperature under vacuum, creating a thin film over the flask's interior surface to maximize evaporation efficiency. The vaporized solvent is then condensed using a glass condenser and collected in a designated container, significantly enhancing overall performance.

## APPLICATIONS

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The Torontech Bench-top Rotary Evaporator is an essential instrument for the gentle and efficient removal of volatile solvents from heat-sensitive samples. Its primary application is to concentrate solutions under vacuum, a process fundamental to modern laboratory work that requires the isolation of a target compound from its solvent without causing thermal degradation. This makes it a cornerstone for purification, concentration, and solvent recycling across numerous scientific fields.

This critical evaporation and concentration capability is fundamental to daily operations in:

- **Pharmaceutical & Chemical Synthesis:** For the purification and isolation of synthesized compounds and Active Pharmaceutical Ingredients (APIs) by efficiently stripping away reaction solvents without degrading the valuable target molecule.
- **Food, Flavor & Botanical Extraction:** To create high-quality concentrates, essential oils, and botanical extracts by gently removing solvents like ethanol, perfectly preserving the flavor, aroma, and potency of the final product.
- **Academia & Research:** As a foundational instrument in organic chemistry and research laboratories for the routine concentration and purification of reaction mixtures, making it an essential part of nearly every experimental workup.
- **Analytical Sample Preparation:** For preparing samples prior to analysis by concentrating dilute solutions to bring the analyte within the detection limits of instruments like HPLC or GC, or for performing critical solvent exchange procedures.

## FEATURES

- **Advanced Sealing System:** PTFE and fluororubber dual seals ensure superior vacuum levels.
- **Durable Construction:** Made with high-strength borosilicate glass 3.3, offering exceptional heat and corrosion resistance.
- **Enhanced Safety:** Rotating and heating systems are equipped with double fuses for reliable protection.
- **Convenient Operation:** Electric lifting mechanism for smooth adjustments.
- **Efficient Solvent Recovery:** Integrated double-coil condenser delivers a high recovery rate.

## TECHNICAL SPECIFICATIONS

| Model                        | EV-201D (ExEV-201D)                     | EV-301 (ExEV-301) | EV-501 (ExEV-501)         |
|------------------------------|-----------------------------------------|-------------------|---------------------------|
| Voltage                      | 220-240V, 50Hz (110V is also available) |                   |                           |
| Overall power                | 1240W                                   | 2040W             |                           |
| Rotating motor power         | 40W (Ex40W)                             |                   |                           |
| Heating power                | 1200W                                   | 2000W             |                           |
| Vacuum degree                | 0.098MPa                                |                   |                           |
| Evaporating flask            | Eggplant shaped 1L                      | 3L                | 5L                        |
| Receiving bottle             | Round shaped 1L                         | 2L                | 3L (with discharge valve) |
| Rotation speed               | 0-120rpm                                |                   |                           |
| Temperature range            | RT~180℃                                 |                   |                           |
| Temperature control accuracy | +/-1℃                                   |                   |                           |

| Model            | EV-201D (ExEV-201D)                           | EV-301 (ExEV-301)                             | EV-501 (ExEV-501)                              |
|------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|
| Lifting distance | 200mm                                         |                                               |                                                |
| Condensing area  | 0.17m <sup>2</sup>                            | 0.26m <sup>2</sup>                            |                                                |
| Bath volume      | 6.6L                                          | 8.8L                                          | 10.4L                                          |
| Dimensions       | 700W*330D*785H mm<br>(Ex: 750W*360D*1060H mm) | 740W*330D*970H mm<br>(Ex: 790W*360D*1090H mm) | 760W*330D*1030H mm<br>(Ex: 690W*490D*1090H mm) |
| Weight           | 17kg (Ex: 32kg)                               | 23kg (Ex: 50kg)                               | 24.5kg (Ex: 51kg)                              |

Note: All models can be manufactured explosion-proof type. The explosion-proof model is equipped with explosion-proof motor, explosion-proof frequency converter, explosion-proof control meter, and explosion-proof cable conduit. The motor power is different, and other parameters are the same.



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